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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/070,920	05/04/1998	AKITOSHI YAMADA	37B.P48	4955
5514	7590	11/12/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			BROOKE, MICHAEL S	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2853	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/070,920

Applicant(s)

YAMADA ET AL.

Examiner

Michael S. Brooke

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7,9-62,64,65 and 67-93 is/are pending in the application.
- 4a) Of the above claim(s) 10-18,39-47,68-76 and 91 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-29,48-58,77-89,92 and 93 is/are allowed.
- 6) ☒ Claim(s) 1-7,9,30-36,38,59-62, 64, 65, 67 and 90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of the restriction in the reply filed on 06/25/04 is acknowledged. The traversal is on the ground(s) that Groups 1 and 2 are not sufficiently different as to warrant a restriction and that there is no undue burden in examining all four of the groups. These arguments are not persuasive. However, with regard to Groups 1 and 2, since the prior art meets the limitations of both groups, the resection between Groups 1 and 2 is withdrawn. Group 3 remains restricted, as the scope of the claims of this group have been shown to be distinct from the claims of groups 1, 2 and 4.

The requirement is still deemed proper and is therefore made FINAL.

Claims 10-18, 39-47, 68-76 and 91 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 06/25/04.

The election of species requirement is withdrawn in view of the arguments presented in the response filed on 09/02/04.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 7, 9, 30-33, 35, 36, 38, 59-62, 64, 65, 67 and 90 are rejected under 35 U.S.C. 102(b) as being anticipated by Numata et al. (6,625,384).

With respect to claim 1, Numata teaches (Fig. 3) a method of controlling an ink jet printer comprising the steps of:

- determining whether a print head temperature has cooled to a threshold temperature after a printing operation (step S40); and
- controlling a capping sequence (step S48) to cap the print head after the print head temperature has cooled to the threshold temperature has cooled to the threshold temperature.

With respect to claims 2 and 3, the determining is repeated (see steps S40 and S41). Since the determining step is repeated, it must be performed once.

With respect to claims 4, 7, 36, 65 and 90, Numata teaches an ink jet recording apparatus and method, wherein a pre-discharge (step S43) is performed before capping. The ink droplets ejected during pre-discharge would necessarily carry heat away from the print head, thereby cooling the print head. The ink jet printing apparatus of Numata would necessarily contain a memory for storing process steps and an interface between the processor and the print head to control the firing of the nozzles. The processor would necessarily have a computer readable medium that contains the code that controls the operation of the print head.

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With respect to claims 6, 9, 35, 38, 64 and 67, Numata teaches that the preliminary discharge is carried out with a discharge frequency that is lower than the driving frequency, so as to prevent an increase in print head temperature.

Allowable Subject Matter

Claims 19-29, 48-58, 77-89, 92 and 93 are allowed.


The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach determining a drop in print head temperature caused by ejecting the ink drops.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. Brooke whose telephone number is 571 272-2142. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael S. Brooke
Primary Examiner
Art Unit 2853

MSB
11/10/04